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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,154	11/17/2003	Spencer Eisenbarth	RACEPK.002A	4307

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EXAMINER

ALLEN, ANDRE J

ART UNIT	PAPER NUMBER
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2855

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,154

Applicant(s)

EISENBARTH, SPENCER

Examiner

Andre J. Allen

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11-11-03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 7-16,18,19,22,25,26,31-33 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Lewis (US 203/0020466).

Regarding claims 1,10-12,18,19,25,26,30 and 36 Lewis teaches a Bourdon tube 18, said Bourdon tube 18 comprising a base (fig. 2), a tube 30 attached to said base a needle 14 (fig. 2) and a mechanical linkage 24 converting movement of said tube into rotational movement of a shaft 16 [0016], a magnetic component 40 being mounted to said shaft 16, said

magnetic component emitting a magnetic field [0018], a GMR sensor 44 mounted relative to said magnetic component and being arranged to detect rotational movement of said magnetic component [0018], said GMR sensor 44 being adapted to output an electrical signal representative of rotation of said magnetic component [0005] (abstract).

Regarding claim 2 Lewis teaches said magnetic member is a bar (fig 2).

Regarding claims 3,16 and 22 Lewis teaches the magnetic member comprises a non-magnetic housing 10.

Regarding claims 7,14 and 31-33 Lewis teaches a said GMR sensor is mounted to a printed circuit board [0020], providing a signal for a microprocessor [0003].

Regarding claims 8,13,15 and 21 and 15 Lewis implies the printed circuit/GMR could be mounted anywhere, and is not limited to the orientation as shown [0020], therefore the circuit being mounted at the base (perpendicular to the axis of rotation) of the tube is inherently taught by Lewis.

Regarding claims 9,20,27 Lewis teaches sensing elements mounted generally perpendicular to an axis of rotation of said magnetic component [0019 lines 14-15].

Regarding claim 28 Lewis teaches needle 14 and said magnetic component 40 are mounted on opposite ends of said shaft 16 (fig. 2).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 4,17 and 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis in view of Gray (US 4745811).

Regarding claims 4,17 and 23 Lewis teaches a bourbon assembly 18 that includes at least one magnet 40, but Lewis does not teach said magnetic member further comprise a pair of magnets disposed within said non-magnetic housing. Gray teaches a bourbon assembly (abstract) having a magnetic member further comprise a pair of magnets 74 76 disposed within said non-magnetic housing 10. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the bourbon assembly taught by Lewis with the teachings of Gray for the purpose of providing highly sensitive and accurate electrical output signals responsive to a physical condition (Gray col. 2 lines 12-15).

Allowable Subject Matter

3. Claims 5,6,24,29,34 and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The claims in the application are deemed to be directed to an non-obvious improvement over the invention patented in Lewis in view of Gray. The claims comprise a fluid-tight housing said mechanical linkage being disposed within a liquid-filled chamber in said fluid-tight housing wherein said housing is divided into said fluid-filled chamber and a dry chamber, said GMR sensor being disposed within said dry chamber.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre J. Allen whose telephone number is 571-272-2174. The examiner can normally be reached on mon-fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2855

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

André Allen
Patent Examiner
Art Unit 2855



William Oen
William Oen
Primary Examiner